Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section

Montreal Star

Bare walls mark site of Sacred Heart College at St. Hyacinthe, Quebec, a monument to 41 students and 5 priests, sleeping in this old-type combustible dormitory. Others escaped, but these needlessly died because the building lacked elementary fire safeguards such as enclosed stairways and automatic sprinklers.

46 Dead in Quebec School Fire

Also in this issue—Saving Life with the Boy Scouts
"Fire Weather" Time Is Here—1937 Apparatus Sales

Volume 5, Number 3 BOSTON, MASSACHUSETTS March 1938

National Fire Protection Association

INTERNATIONAL

VITAGUARD

Fire Alarm System for Volunteer Fire Departments

The four essential elements of the simplest and most effective fire alarm system are illustrated in this diagram.

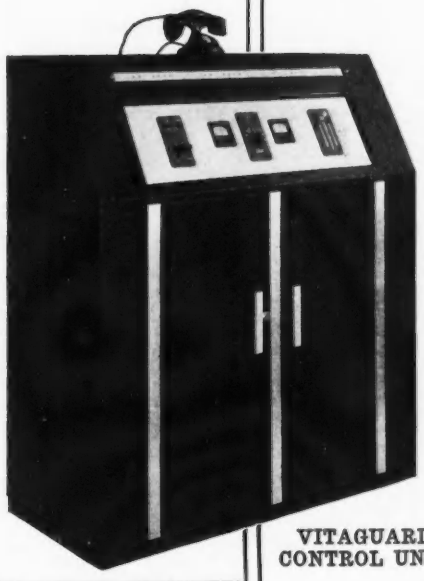
1. **FIRE ALARM BOXES.** A Vitaguard box when operated transmits four complete repetitions of its location number, which automatically sounded by the public alarm, directs the firemen to the scene of fire.

2. **PUBLIC ALARM.** The Diaphone compressed air horn is the most powerful sound producing device yet applied to fire alarm service. It has great sound penetration, a distinctive tone, and the ability to sound fast coded signals in clear, sharp blasts. There is no lag in the signal, the full volume of sound is instantly emitted.

3. **CONTROL UNIT.** This unit includes a recording register, code signal transmitter, storage battery, rectifier, protective and testing equipment, and line terminals. The batteries are automatically maintained in a fully charged condition. All instruments are automatically wound.

4. **CIRCUIT.** The simple closed metallic circuit consists of one wire attached to public alarm and control unit at the fire station, connects with all fire alarm boxes and returns to fire station. The system may include from one to forty boxes.

PUBLIC ALARM
Diaphone Horn
Projecting Above Roof



VITAGUARD CONTROL UNIT

Outstanding Features are — Simplicity . . . Low Initial and Maintenance Costs . . . Rugged Construction . . . Automatic Operation of Alarm Equipment . . . May be Installed by Local Electrician

Write for complete catalogue

THE GAMEWELL COMPANY

NEWTON UPPER FALLS MASSACHUSETTS

HORATIO BOND Managing Editor

PROBABLY every fireman knows of some driver who is constantly trying to show how fast his car will go, or how much of a hill it will climb in high gear. Such drivers are often ruining cars because they do not know that automobiles are made capable of high speeds not because it is ever desirable to go "80" but in order to provide reserve power to meet trying conditions.

What is true of driving habits in general may also apply to the operation of fire apparatus. While it is well known that many a fire truck has been wrecked and never reached a fire because of excessive speeds it is equally true that many pumpers have been damaged at fires by being operated at capacities far beyond those for which they were designed. Modern fire apparatus is built with sufficient reserve power to meet its rated capacity without undue strain. This fact does not justify over enthusiastic firemen in claiming that their 500 gallon pumper is a 600 gallon job. They may force the machine to push out more water than it was designed to deliver, but in the long run the result may be burned out bearings and a shortened life for the costly apparatus.

One way in which pumpers are frequently abused is to supply streams at much higher pressures than is necessary. This is a serious error because besides possible damage to the apparatus, excess pressure causes the stream to break and makes the hose difficult to handle. The practice of giving too much pressure may be due to the excitement at a fire or may result because the operator does not know the proper pressure to use. Pump operators knowing the few simple facts about fire streams given in the January and February issues of VOLUNTEER FIREMEN should find it easy to give the proper pressure.

ONE of the livest volunteer organizations in the country is the Junior Fire Department of Sebring, Ohio. Some readers may remember that it was described in the December 1936 issue of VOLUNTEER FIREMEN. It is a *bona fide* fire fighting unit which operates as a second company of the Sebring Fire Department, and its members are active in community affairs. Your editor is particularly proud of a handsome ashtray he received from this department. The tray, one of a number distributed in Sebring, bears the legend, "Use Me—Help to Prevent Fires—Sebring Junior Fire Dept." This is not only a very acceptable addition to our desk equipment, but is an example of practical fire prevention education.

LAST month 19 departments with 415 men joined the Volunteer Firemen's Section for the first time, the largest number since last May. In addition 55 fire departments with 1208 men renewed membership bringing the total for the Section to 562 departments and 12,507 firemen. The following departments are newly enrolled:

Los Angeles Fire Department, Bureau of Public Relations, Los Angeles, California.

Ventura Fire Department, Ventura, California.

Turn of River Fire Department, Stamford, Connecticut.

Delaware City Fire Company No. 1, Inc., Delaware City, Delaware.

Mount Hope-Funks Grove Volunteer Fire Department, McLean, Illinois.

Community Fire Company, Inc., Linthicum Heights, Maryland.

Niagara Engine Company, Millis, Massachusetts.

Hermann Fire Company No. 1, Hermann, Missouri.

Harrison Volunteer Fire Department, Harrison, Nebraska.

Hook and Ladder Company No. 1, Inc., Madison, New Jersey.

Hose Company No. 1, Inc., Madison, New Jersey.

Gates Mills Fire Department, Gates Mills, Ohio.

The Collingdale Volunteer Fire Company No. 1, Collingdale, Pa.

Fredonia Volunteer Fire Department, Fredonia, Pennsylvania.

Yankton Fire Department, Yankton, South Dakota.

Canadian Volunteer Fire Department, Canadian, Texas.

Henderson Fire Department, Henderson, Texas.

Vinton Fire Department, Vinton, Va.

Worland Volunteer Fire Department, Worland, Wyoming.

Volunteer Firemen

Volume 5 Number 3

Copyright, 1938, National Fire Protection Association, a voluntary non-profit organization, 60 Batterymarch Street, Boston, Mass., U. S. A.

Franklin H. Wentworth Managing Director
Percy Bugbee Assistant Managing Director
Robert S. Moulton Technical Secretary
DeWayne E. Nolting Fire Record Department

Please notify us promptly of any change of address

CONTENTS for March 1938

46 Dead in Quebec School Fire. Students and priests die in firetrap dormitory. Page 4

Saving Life with the Boy Scouts. Protecting themselves and others from fire dangers. Page 5

"Fire Weather" Time Is Here. Annual grass and brush fire season is starting. Page 6

Time Checks for Forest Fire Fighters. A system to simplify keeping track of men working at woods fires. Page 7

1937 Apparatus and Extinguisher Sales. Page 8

DEPARTMENTS

Problem Question for March. Page 8

Pyrene Prize Letter Contest. Page 10

-THE VOLUNTEER FIREMAN

Warren Y. Kimball Associate Editor

46 Dead in Quebec School Fire

Dominion Fire Commissioner Says It's Time for Action to Make Other Fire Trap Institution Buildings Safe

ONE of the worst school fire tragedies ever to occur on this continent destroyed the Sacred Heart College at St. Hyacinthe, Quebec, early on the morning of January 18, 1938. Forty-one students and 5 priests lost their lives when fire following an explosion almost instantly enveloped the school building, a 37-year old 4 story brick-joisted affair. In the students' dormitories on the two top floors were sleeping 96 boys of ages between 11 and 18 years, and a few priests. On the ground floor were sleeping 26 priests and 5 employees, most of whom escaped.

The watchman, an old man with one arm, said he failed to discover anything unusual when he made his 1 A.M. round. The occupants, awakened by an explosion about 2 A.M., were confronted by stifling smoke and flames coming from the ventilators into the dormitories. Almost instantly the exits were cut off by flames. Outside iron fire escapes were also cut off by flames coming from the windows. A few of the occupants escaped by crawling through the smoke to a metal chute fire escape. Others rolled themselves in their bedclothing and jumped from upper windows into snow drifts. None of the occupants had opportunity to dress and those that did escape suffered severely from the 8 below zero temperatures before they could find shelter.

The top floor dormitory housed 43 of the smaller boys. Priests directed these boys down an outside fire escape to the roof of another section of the building. From this point the boys were urged to jump into the snow drifts below but, most of them, too frightened to jump, remained on the roof until it collapsed a short time later.

THE first alarm was telephoned to the fire department by a passerby at 2:03 A.M. Fire apparatus arrived within three minutes after the alarm was given. At that time the building was enveloped in flames and the department devoted its efforts to raising ladders to the windows. Priests assisted in this work which was necessarily limited by the men and ladders available. A great many ladders would have been needed to do all the required rescue work. Lack of life nets was blamed for the loss of most of the boys trapped at windows and on the roof. Attempts of firemen to enter the building were blocked by bolted doors as the building was customarily locked early each evening. Of the 46 victims, only eight could be identified when taken from the ruins, so complete was the destruction. Thirteen other occupants were seriously injured by burns and injuries received in jumping.

St. Hyacinthe is a small manufacturing city about 30 miles from Montreal. Departments in such cities are usually undermanned. In this case policemen were ordered to respond to alarms and assist in fire fighting operations. There was also a volunteer reserve brigade which answered the alarm promptly.

The college building valued at $500,000 was completely destroyed with only a portion of the walls remaining. A total of $254,000 insurance was carried on the structure.

THE cause of the fire, while not officially determined, has been attributed to a coal gas explosion. Early reports that the initial explosion was of incendiary origin have been largely discounted. The heating and electrical equipment were inspected last Fall and pronounced safe. Electric lights were burning when the fire was discovered so electricity is not regarded as a probable cause. However, at the time of the disaster the five furnaces in the building were being pushed because of the extreme cold. Records compiled by the Dominion Fire Prevention Association show that almost three-fourths of all school fires in Canada during the past 16 years have been due to heating equipment.

Regardless of the immediate cause of this fire, no expert judgment should be required to label as a firetrap a building of combustible interior construction which housed 100 persons on upper floors without adequate exit or fire alarm facilities. Following this disaster the Hon. J. Grove Smith, Dominion Fire Commissioner, issued an official bulletin saying, "Within six months every institution in Canada could be made substantially fire-safe if action were made the substance of our prayers." "The solution" says Mr. Smith, "does not lie in post-mortem sympathy and tear-bathed regrets."

HE FURTHER says, "The aftermath of every major disaster such as the St. Hyacinthe fire is an attempt to cover the responsible authorities with a blanket of sympathy and launch a loquacious drive for reform before the public lapses into its customary torpor. All of which is very ineffective in its bearing upon the ever present fire menace. At best, the result is a public demand that energetic measures be taken to teach children the rudiments of carefulness upon the assumption that this will avoid catastrophes. In the long run, there undoubtedly is value in that effort but security cannot be bought so cheaply."

Mr. Smith points out that of 4,200 school fires in Canada since 1922, the eight largest disasters alone accounted for 342 fatalities. Therefore, even if the number of fires had been reduced to only 400 no one can say which of these disasters would have been avoided. Had the buildings been firesafe, many of the worst of the fires would have been avoided and no lives lost.

"Ninety per cent of the life loss in institutional building fires on this continent has resulted from flammable structural conditions. Of the 2,100 Canadian fatalities in burning buildings in the past ten years not one life was lost in a fire retardant structure. Fire escapes and emergency exits are, at best, expedients adopted to meet exigencies invited by inadequate construction.

"EVERY public building should be designed for the protection of its occupants and not for their ejection by fire. Mark the hundreds of establishments, maintained in the name of charity, where mere children are expected to climb from three and four story buildings by means of skeleton iron ladders that in icy conditions would test the ability of the ablest firemen. So long as millions of our children are compelled to attend schools and thousands of others occupy buildings of a public or semi-public character, the public cannot absolve itself from responsibility."

Saving Life with the Boy Scouts

Protecting Themselves and Others from Fire Dangers—Firemanship Most Popular Merit Badge

FOURTEEN-year-old Allen Taylor awakened in the middle of the night smelling a suspicious odor. With his family, Allen was stopping at a hotel in Far Rockaway, Long Island. He got up, went into the hallway and found it was full of smoke. Then he began to remember every word he had read in his Scout Handbook and also what his scoutmaster had told him to do in such an emergency.

He wet two handkerchiefs under the faucet, gave one to his father, and tied one over his own nose and mouth. He hurried down the corridors of the hotel, pounding on doors and calling out, "Better get dressed! There's a little fire. Nothing to get excited about but you'd better get out!"

After he had waked everybody up he joined his father and the other men who had organized a bucket brigade and were throwing water on the flames. When questioned by reporters, Allen said, "It was routine scout stuff." Routine, perhaps, but not the kind of routine commonly known by the average man or woman, let alone a 14-year old boy. All of which shows the importance of the training in fire prevention being given hundreds of thousands of boy scouts each year.

TODAY, in some 30,000 scout troops scattered throughout the United States in cities, towns and cross roads, boy scouts are learning about fire and how to prevent it. Under the leadership of the Health and Safety Service of the Boy Scouts of America, scoutmasters are discovering new and absorbing activities for the scouts. These are practical games in which rival patrols in each troop match their skill in fire escape drills from darkened meeting rooms, and observation games in which each group attempts to discover the greatest number of fire hazards which surround their meeting place in church basement, school auditorium or hall and secure their correction. Patrols, Troops, Cub Packs, Sea Scout Ships are all whetting their "nose for fire hazards" in a way which is resulting in practical and workable training in preventing fires, rather than in fighting them once they are under way.

A Boy Scout activity: assisting the fire department in a campaign against false alarms on holidays.

THIS training is not confined to fire hazards in buildings. Scouts are traditionally an outdoor group and camping is their chief hobby. Naturally, their fire prevention training includes instruction in building campfires safely in the open, and how to improvise from odds and ends of materials on hand such fire fighting equipment as brush beaters made from burlap bags and buckets made from No. 10 tin cans. Scouts in camp organize fire fighting teams similar to junior volunteer fire brigades.

Firemanship throughout the years has proved the most popular of some 100 different merit badge subjects offered to scouts. In all 432,229 boys have won the right to wear the embroidered crossed nozzle and fire trumpet. The total number of boys having earned this badge is greater by 100,000 than the number obtaining First Aid merit badge, second in popularity. Last year alone, 22,564 scouts passed the Firemanship tests.

Through the Firemanship merit badge the individual ambitious scout may explore the field of fire prevention and gain practical knowledge in fire fighting. When a boy wears this badge he has, among many other things, submitted a practical plan of action for the safe escape of his whole household, including himself, in case of a fire at night. He has formed a bucket brigade, demonstrated how to store gasoline safely and how to put out burning clothing. He has reported on causes of fires and has personally inspected his troop meeting place for such hazards. He has also been drilled in methods of making safe campfires and how to fight a fire in the out-of-doors.

The Firemanship merit badge requirements are designed to determine the scout's practical knowledge of the subject rather than mere book knowledge. Scout training is flexible enough so that whether in the country or in a city a scout knows what to do when fire occurs. While all scouts are drilled in fire prevention, rescue work and escape from burning buildings, it is in rural areas, distant from fire departments, that scouts are more likely to assist in actual fire fighting operations. In cities their first duty is usually to make sure that the fire department is called promptly and then keep out of the way of the firemen or assist in keeping back the crowd. In addition to Firemanship, other Boy Scout merit badges that include training in fire safety are Safety First, First Aid, and Forestry.

AS PART of their 28th anniversary celebration Boy Scout Week was observed February 6-12, this year. At that time 1,084,172 scouts and their leaders attempted to show America what they know about fire safety and related fields of home and highway safety. To awaken thoughtfulness and care scouts staged safety demonstrations during Boy Scout Week as their "good turn" to the public.

Typical fire safety demonstrations staged by scouts included:

1. Demonstration of how to make improvised fire fighting tools.
2. Instruction in extinguishing burning clothing by rolling victim on floor in rug or blanket.
3. Demonstration of various ways by which fires start such as oily rags, improper fuses, and gasoline stoves.

"Fire Weather" Time Is Here

Grass and Brush Fire Season On—Most of Great Conflagrations Have Also Occurred in the Three Months of Year Just Ahead

WHEN warm spring days arrive, fire departments face one of the toughest spots on their calendar. This is "fire weather" time, the period of frequent and severe grass and brush fires. Last year was a relatively easy one so far as such fires were concerned. Experienced firemen in thousands of rural communities, however, do not see in this any reason to expect that we will get off as easily again this year. In the days before the fresh green breaks out in the fields and woodlots, they are watching the relative humidity and getting ready for the annual epidemic of calls to grass and woods fires. Water sources, including water holes and approaches to ponds, are being inspected. Private water supplies in wooded areas are being listed for emergency use.

Even the big cities are often forced to reduce first alarm assignments and detail men from down-town companies to grass and brush fire patrols in outlying districts as grass and brush fires become numerous. Spring "fire weather" is of significance to large cities not only for its grass fire hazard but because when grass and brush are dry, wooden shingles and other combustibles are also like tinder. Fire companies which are running to grass and brush fires are not available to fight fires in buildings.

International

This blaze on Long Island, N. Y., shows how woods fires may endanger many buildings at once. In this case, excellent highways aided fire fighters in limiting the fire.

The practical nature of this hazard is shown by the records of the N.F.P.A. which indicate that 41 per cent of all the great conflagrations since the turn of the century have occurred in the three months just ahead.

Many departments have found it practical to have special trucks with which to respond to grass and woods fires. Special apparatus for grass and brush fires usually is equipped with an extra large water tank and plenty of booster hose. If the truck is likely to be called into densely wooded areas, it may also carry a motor-driven portable pump and several thousand feet of 1½-inch forestry hose.

All such special apparatus will have a generous supply of portable pump tanks. These tanks enable fire fighters to quickly surround a fast-spreading fire and are much more effective than spades or brooms for this kind of work. It would probably be practical in many places to equip every piece of apparatus with a supply of pump tanks, particularly during the grass and brush fire season. Sometimes the frequency of alarms for grass and brush fires is such that even ladder trucks have to go out to fight them.

Prompt response is essential in fighting grass and brush fires. Instead of waiting for a crew of men, it is usual practice to start the forest truck to a fire as soon as the alarm is received. Some volunteer departments arrange to keep a crew in the fire station on hot dry afternoons.

A GENERAL plan of attack on grass and woods fires consists of having the first fire fighters who arrive try to get ahead of the fire with a stream before it gets out of control, or to prevent the fire from reaching buildings. Men arriving later take care of the flanks of the fire and complete extinguishment.

Successful handling of many woods fires will depend on how accessible are water supplies and how well roads are cleared out for fire apparatus. It is helpful to have a good map of the area under protection on which these features can be conveniently checked and marked. Suitable low cost maps for this purpose may be obtained from the U. S. Geological Survey for most sections of the country.

Forest Fire Service
OXFORD

Date .....

Name .....

Issued by .....
(Deputy)

No. 1651

Time Finished ..... A. M. P. M.

Time Started ..... A. M. P. M.

Forest Fire Service
OXFORD

No. 1651

THIS TIME CHECK MUST BE RETURNED TO DEPUTY IMMEDIATELY AFTER YOU FINISH WORK IN ORDER TO COLLECT YOUR PAY.

Time Checks for Forest Fire Fighters

MANY fire departments report difficulty in keeping track of the time worked by men fighting forest and brush fires. Some departments require that the members of each company report to their officers who turn in records showing the time worked by each of their men. Such a system is often rather hit or miss and also does not keep track of the time worked by outsiders who are sometimes drafted to assist at large fires.

Fire Chief Leslie C. Wentworth, of Oxford, Massachusetts, has devised a very practical system for keeping an accurate record of the actual time worked by every man at a forest fire. Chief Wentworth has given to his deputies books of tickets similar to the one shown above. As each man reports at the fire for tools or orders he is handed the small check torn from the bottom of a ticket. The deputy records the time the ticket was issued. In order to collect any pay the fire fighter must turn in his check when relieved from duty and the time he finished working is entered on the stub of his ticket. No time is lost at the start of the fire because the name of the fire fighter, date and officer's name does not have to be filled out until the checks are turned in after the fire. Chief Wentworth reports that these tickets pay for themselves in one fire because of the red tape, delay and lost motion which they help to save as well as providing accurate payroll data.

Ready FOR YOU NOW

M·S·A ONE-HOUR OXYGEN BREATHING APPARATUS

Here is the answer to insistent demands of fire departments and industry for an oxygen apparatus combining wearing ease of the Lightweight Half-Hour type with respiratory protection for a full hour, even under the most strenuous working conditions. Retaining every tested feature of the famous Half-Hour unit, the new One-Hour Apparatus provides doubled capacity and perfect balance, with but slight increase in weight. Write for full details—and a ready demonstration!

MINE SAFETY APPLIANCES COMPANY
Braddock, Thomas and Meade Streets: Pittsburgh, Pa.
District Representatives in Principal Cities

DEMONSTRATIONS ON REQUEST

The New Federal "66" Junior Long Roll Siren

• Users of the lighter emergency vehicles appreciate this Siren for economy — ruggedness and beauty. Larger than the usual siren for light apparatus, it has both more sound volume and a larger, stronger light. Made to meet all average requirements. Rolls for more than thirty seconds. Specify the Federal "66" Junior Long Roll Siren on your equipment under actual conditions—it will do the rest! Every siren is precision made — weather tested.

Specifications:

MODEL ..... "66"
FINISH ..... Chrome
VOLTAGE ..... 6, 12, 24, or 32
DIMENSIONS .. 14¾" long x 8¼" high
NET WEIGHT ... 13¼ lbs.
BRACKETS ..... Pedestal or Bar

Write for bulletin No. 56

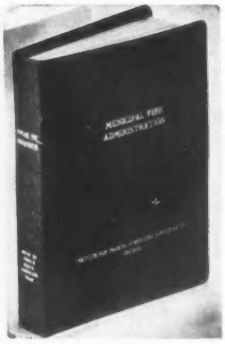
FEDERAL ELECTRIC CO.
8717 SOUTH STATE ST., CHICAGO, ILL.

If you are a fire commissioner, city manager, fire chief or fire department officer, or if you hold any other administrative position in your local government, or aspire to such position—

KEEP AHEAD OF YOUR JOB

by enrolling in a Practical Correspondence Course in

FIRE ADMINISTRATION



A 600-page volume comes with the course and contains material never before found in print.

WHILE sponsored by city managers as a part of the in-service training program of their profession, here is a course which has a value to everyone who has anything to do with the direction or operation of a fire department. The problems of volunteer and part-paid fire departments, including such typical ones as those of equipment, rural water supplies, mutual aid and county organization are given equal attention with problems of the larger city fire department. Available nowhere else is the data included from more than 200 cities covering fire department personnel, stations, insurance costs and fire losses. The nominal fee of $25 for the course covers the above text (which the student may keep), the course of lessons, and personal review and correction of lesson papers.

Outline of Course in
FIRE ADMINISTRATION

The Municipal Fire Problem.
Fire Insurance Classification of Cities.
Organization for Fire Protection.
Personnel Administration.
Water Supply for Fire Service.
Department Buildings and Equipment.
Distribution of Equipment and Personnel.
Fire Alarm Signaling Systems.
The Technique of Fire Fighting.
Legal Aspects of Fire Prevention.
Work of Municipal and State Fire Prevention Agencies.
Fire Investigation and Incendiarism.
Records and Measurement of Results.

Institute for Training in Municipal Administration
850 East 58th St., Chicago, Ill.

Please send me particulars and application form for the Course in Fire Administration. This does not obligate me to take the course.

Name .....

Address .....

(VF338) .....

1937 Apparatus and Extinguisher Sales

MANY more new fire engines were shipped to fire departments in the United States during 1937, according to figures recently released by the United States Department of Commerce. The 863 shining new fire trucks outnumbered by 163 the fire apparatus deliveries for 1936 and showed a 60 per cent increase over the number of new engines in 1935.

As might be expected pumpers were the most popular of the various types of apparatus bought. A total of 761 water pushers of all sizes were delivered as compared with only 9 hose cars and one chemical truck. Years ago hose and chemical trucks were almost as popular as pumpers but fire departments have discovered that they might as well make the motor drive a pump as well as take the men and hose to a fire.

Most of the new pumpers, 428 of them in fact, have rated capacities between 500 and 700 gallons per minute. Only 99 pumpers were rated under 500 g.p.m. but there was a large increase in units over 700 g.p.m. The number of big pumpers was 234 in 1937 as compared with 166 in 1936. Last year 58 new pumpers were rated at more than 1000 g.p.m. as compared with 28 such pumpers in 1936 and only 15 in 1935.

Not only were pumper sales up last year but ladder truck deliveries increased 52 per cent over the previous year. Of the 88 new ladder trucks more than three-fourths were aerials.

This may be in part attributable to the fact that there are few departments, in either large or small communities, which get to every fire with an adequate force of men. Aerials have the advantage that they require only one or two men for their operation.

Increased appreciation of fire extinguishers as a means of protecting homes and places of business was reflected in the sale of 132,605 more approved first aid fire appliances than in the previous year, 524,039 in 1937 to 391,434 in 1936. Following are 1937 sales by type of unit.

1937 SALES OF APPROVED EXTINGUISHERS

Vaporizing liquid (carbon tetrachloride base)	341,024
Soda-acid	107,759
Foam	50,967
Pump (water or calcium chloride solution)	10,964
All other approved (loaded stream, carbon dioxide, dry chemical, etc.)	13,325
Total	524,039

A Problem Question
FOR MARCH

Suggested for discussion at company and department meetings this month

76

How would you go about spotting fire alarm boxes if you were to lay out an ideal fire alarm system for your town?

Watch for the answer in the next issue of VOLUNTEER FIREMEN. The answer to the problem question for February will be found on page seven.

NEW CATALOGUES

This department is for the convenience of readers who wish to be advised of new products or services in the fire field. When writing for catalogues please mention VOLUNTEER FIREMEN.

American-Marsh Pumps, Inc., Battle Creek, Mich. Bulletin No. 75 (Edition No. 4). Data on Barton Pumps.

Cairns and Brother, New York, N. Y. Firemen's Equipment Catalogue No. 29. 50 pp. illustrated.

Carpenter Mfg. Co., 178 Sidney St., Cambridge, Mass. Descriptive circular describing "Wig-Wag" Redhead warning light for fire apparatus.

W. S. Darley and Co., 2810 Washington Blvd., Chicago, Ill. 100-page catalogue "Everything for Fire Departments."

Federal Electric Co., 8717 South State St., Chicago, Ill. Bulletin No. 56. Details of Federal sirens.

The Fyr-Fyter Co., Dayton, Ohio. Four-page illustrated leaflet, describing 5-gallon farm fire extinguisher (new shape hand pump type).

Gamewell Co., Newton Upper Falls, Mass. "Vitaguard," a manual, 40 pages. A complete description of the Vitaguard fire alarm system for volunteer fire departments and industrial plants.

Homelite Corp., 62 Riverdale Ave., Port Chester, N. Y. 8 page, 2 color bulletin describing portable floodlighting plants for fire departments.

Mine Safety Appliances Co., Braddock, Thomas and Meade Sts., Pittsburgh, Pa. Bulletin No. BM-1 describing new one hour lightweight oxygen breathing apparatus.

D. B. Smith & Co., 416 Main St., Utica, N. Y. Catalogue describing Indian Fire Pumps.

A New Fire Department Manual

For those who want to know how to get the best hose, and how to get the most out of hose—such folks as:

—the man who buys the hose
—all firemen who use it
—the man who tests it
—new firemen
—firemen in training classes
—industrial users of fire hose

Hose

and Hose Couplings

A substantial manual of 44 pages, 6 in. by 9 in., 11 illustrations, containing informative material on the selection, care and testing of hose and hose couplings, compiled from recommendations of N.F.P.A. committees and other authoritative sources. Includes a detailed set of specifications for use in buying hose.

Single copies.....25 cents

Send 25 Cents for your personal copy now

Put a copy in the hands of every fireman in your department. Manual shows how to load hose so as to prevent deterioration and how to handle it at fires to avoid unnecessary damage.

If you can use more than 100 copies write for quantity prices.

National Fire Protection Association
INTERNATIONAL
60 Batterymarch St., Boston, Mass.

Here's Easy Way to Join the Volunteer Firemen's Section

National Fire Protection Association

THE MEMBERSHIP plan for the Volunteer Firemen's Section is designed to give every member of a fire company advantages of membership in the National Fire Protection Association (International), long known as a clearing house of authoritative fire fighting and fire prevention information. The fire company or department, as a member, receives at its headquarters a complete set of the many interesting N.F.P.A. publications as issued, including the profusely illustrated *Quarterly* magazine. In addition and without additional cost, the magazine VOLUNTEER FIREMEN is sent to the home addresses of 20 firemen each month. Fire department membership in the N.F.P.A. costs only $10 per year. If more than 20 firemen want the magazine, an additional 50 cents apiece should be sent in for each man in excess of 20.

PERHAPS the simplest way to finance N.F.P.A. membership is to vote the annual dues from the company treasury. However, because N.F.P.A. membership is a recognized educational activity, many fire departments subscribe for their men with money from the regular fire department appropriation. Other departments collect 50 cents from each man who is to receive VOLUNTEER FIREMEN until at least the minimum N.F.P.A. membership fee of $10 is reached.

BECAUSE the National Fire Protection Association is widely known as a source of information vital to progressive fire departments, many companies and departments find that outsiders, either individuals or civic organizations interested in the department, will contribute all or part of the membership fee.

All that is necessary for N.F.P.A. membership is to send in the annual dues ($10 for a department of 20 men or less) with names and addresses of firemen who are to receive VOLUNTEER FIREMEN.

INDIAN FIRE PUMPS

Here is the outfit which more and more fire departments are relying on for fires of every description. INDIANS are the all purpose fire pumps. Brass pump throws strong 50 ft. fire stream that literally smothers the fire. Carrying racks for trucks hold pumps firmly in place. May be kept filled continually—will not rust or corrode. Use clear water. Just what you need for roof, building, rubbish and grass fires.

Our firemen use the INDIAN in a house in place of the soda and acid type of extinguisher as they are JUST AS EFFECTIVE and do not spoil or make a mess of the contents of the house. Our department has four INDIAN FIRE PUMPS and we could not get along without them. They are WORTH THEIR WEIGHT IN GOLD. —A. R. BERGER, *Fire Chief Georgetown, Conn.*

CARRYING HANDLE

May be carried on the back or by handle. Form fitting, ventilated tank allows continuous circulation of air between carrier's back and water tank. This prevents dampness, moisture, and cold reaching carrier's back which remains dry and comfortable. Clear water continually kept in the tank makes the INDIAN ready for use at all times. Tank will not rot or mildew.

Send for Catalog

D. B. SMITH & CO.
416 Main St., Utica, N. Y.

Pacific Coast Agents:
Hercules Equip. & Rubber Co.
550 Third St., San Francisco, Cal.
Pacific Marine Supply Co.
1217 Western Ave., Seattle, Wash.
Western Loggers' Machinery Co.
302 S. W. 4th St., Portland, Oregon

1 GALLON—DUPLEX PUMP

"CAPTAIN"-FYR-FYTER

AN IDEAL EXTINGUISHER FOR VOLUNTEER FIRE DEPARTMENTS

Here is the equivalent of four 1-quart extinguishers built into one thus making this large quantity of vaporizing liquid available without running for another extinguisher when more than the average size blaze is encountered. This is but one of the complete line of Fyr-Fyter Extinguishers each of which have exclusive merits which stamp them as superior.

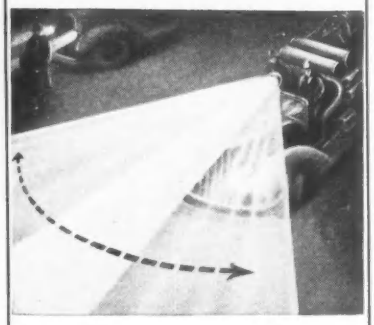
DEALERS WANTED

If you are interested in adding to your income by spare time work or in building a permanent business for yourself without investment in stock, fixtures, etc., write for our new Dealer's Plan to

FYR-FYTER COMPANY

Dept. 20-27 DAYTON, OHIO

Sweeps through Traffic with Powerful RED BEAM *500 feet ahead—*



"WIG-WAG" Redhead

The Master Light

Swings from side to side
Positively Clears Path
for
Fast—Safe—Quiet runs.

Ask us to send you one on approval or write for descriptive circular

Carpenter Mfg. Co.

178 Sidney St., Cambridge, Mass.

Bring Home $10.00 Easy Money

Pyrene Prize Letter Contest Pays for Stories of Good Work Done by Firemen With Extinguishers

FIREMEN know better than anyone else what fire extinguishers can do and that is why the Pyrene Prize Letter Contest is so popular. You may know of a case where an extinguisher saved a life or made a good stop; just tell the facts your own way. Having won a previous prize does not bar you from making another entry. The contest is sponsored jointly by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN.

FIRST PRIZE—$10.00

WILLIAM J. DEACON
Fire Department, Lachute Mills, Quebec

Saved Tinsmith Shop

"Some time ago while I was working in a tinsmith shop, the boss bought a one-quart carbon tetrachloride extinguisher (new to us then) and put it up beside the door. Every time you pass one of those little extinguishers you read the directions. I had them by heart.

To operate
Turn handle to left
Work like a pump
Direct stream
at base of flame

"One day while I was repairing a lighted gasoline fire pot used for heating soldering irons, the burner pipe broke off. A gallon of gasoline was sprayed through a ¼-inch pipe under pressure. Everybody ran for the doors and as I went out I took the little extinguisher with me. Turning around I opened the door a few inches and followed the familiar directions. As I pumped the liquid on the fire a black cloud started at the ceiling and closed right down until it got to the floor and then the fire was no more. We simply ventilated the place and went back to work with no lost time or fire damage."

SECOND PRIZE—$3.00

JESSE M. ELLIS, *Assistant Chief*
Fire Department, Sanger, Calif.

Saved Packing House

"About midnight, one night in November, 1937, a fellow employee and myself had finished re-icing a refrigerator car, loaded with packed grapes, when my partner climbed into the seat of our escalator truck to smoke. He tossed his match into a puddle which had drained from the ice compartment of the car; then yelled: 'Fire!' A broken gasoline line had allowed about ten gallons of gasoline to spread on the ground and water. I saw fire under one end of the car, under our truck, and also next to the packing house. A watchman grabbed a 2½-gallon soda-acid extinguisher, handed it to me and ran to telephone the fire department. Turning the extinguisher on the fire I drove it back to a small space next to the packing house and smothered the last patch of fire with a wet sack. The extinguisher prevented a possible loss of $40,000."

THIRD PRIZE—$2.00

E. O. FROSETH, *Chief*
Fire Department, Spencer, Nebraska

Hospital Fire Extinguished

"On December 12, 1933, we were called to the community hospital. A gasoline heater had exploded in the dining room, throwing gasoline all over the room. Using a one-quart carbon tetrachloride extinguisher and approximately one-half of a one-gallon extinguisher of the same make we had the fire completely out in a few seconds after arrival. The first sight showed a solid mass of fire in the room and up the stairway to the second floor. The extinguishers were used in the dining room only, but the fire did not reach the second floor although it burned the paper on the walls of the stairway. The fact that there was over $200 damage from fire, that no water was needed and that so small an amount of fluid was used, shows the efficiency of the extinguishers."

HONORABLE MENTION

F. L. Berry, Ames, Iowa; Howard S. Wood, Schoharie, New York; Walter O. Lynch, Albany, California; Gale Templin, Louisville, Kentucky.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 8th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

CONTENTS

National Fire Codes

for Flammable Liquids and Gases

360 pages, 6 in. by 9 in.
Illustrated and indexed.
$1.50 per copy, postpaid.

Flammable Liquids Ordinance

Rooms, Cabinets and Outside Houses for the Storage of Flammable Liquids

Concrete Fuel Oil Tanks

Marine Oil Terminals

Freeing Tanks of Flammable Vapors

Tank Truck Ordinance

Oil Burner Regulations

Oil Burner Ordinances

Range Oil Burner Ordinance

Kerosene Oil Stoves

Gasoline Stoves

Gasoline Blow Torches

Gasoline Vapor Gas Machines, Lamps and Systems

Gasoline and Kerosene on the Farm

Liquefied Petroleum Gas Code (Propane and Butane)

Liquefied Petroleum Gas Regulations

Compressed Gas Systems

Liquefied Petroleum Gas Tank Trucks

Liquefied Petroleum Gas as a Motor Fuel

Internal Combustion Engines

Motor Craft, Pleasure and Commercial

Airplane Fueling Operations

Dry Cleaning and Dry Dyeing

Dip Tanks, Hardening and Tempering Tanks, Flow Coat Work

Paint Spraying and Spray Booths

City Gas, Installation, Piping, Fittings

Odorization of Gas

Gas Shut-off Valves

Coal Gas Producers

Acetylene for Lighting, Heating and Cooking

Gas Systems for Welding and Cutting

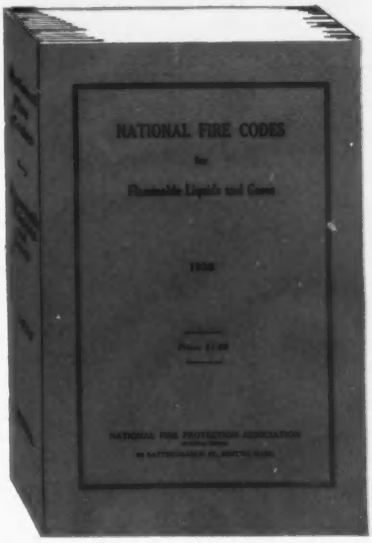
Anaesthetic Gases and Oxygen in Hospitals

Refrigeration Safety Code

Fire Hazard Properties of Flammable Liquids, Gases and Volatile Solids

Committee Personnel

Index



The Most Important Fire Book That Will Be Published This Year!

National Fire Codes

for Flammable Liquids and Gases

The public demands expert advice, not guesses, on matters of fire safety. You are likely to be asked, for example, how to safeguard a paint spray booth, what is the flash point of fish oil, or what to do to make safe the use of anaesthetic gases in hospitals. And there are hundreds of other problems which come up in fighting fires where flammable liquids and gases are involved.

The answers to such questions are given in this authoritative volume. Not one man's opinion or experience, but the considered judgment of experts in their several fields, these recommendations may be quoted as official. In all, the volume includes 36 important sets of regulations covering the entire range of hazards from flammable liquids and gases.

Fires in flammable liquids and gases are tougher and more dangerous than the ordinary run of alarms answered. These codes show primarily how the fires may be prevented. If you know the safeguards for each of these hazards, it will also enable you to promptly and safely handle these fires when they come along.

Use the Order Form for Your Copy Now

ORDER

NATIONAL FIRE PROTECTION ASSOCIATION
60 Batterymarch Street, Boston, Mass.

Date .....

Please send me ..... copies of The National Fire Codes for Flammable Liquids and Gases,

for which $..... ($1.50 per copy, postpaid) is enclosed.

Name ..... Address .....

BARTON FIRE PUMPS

Everything Better — EVEN THE PRICE!

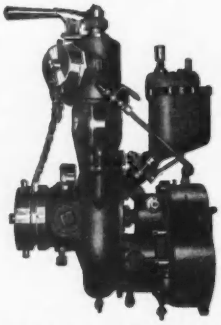
Believe it or not—in the case of fire pumps, **the best costs the least.**

Barton Fire Pumps **front-mounted** can save your community HUNDREDS OF DOLLARS in the cost of complete apparatus—yet give you everything required in the way of first-class protection.

Incorporated in Barton Pumps is the utmost in high-efficiency and endurance. We use the finest materials — stainless steel, ball bearings, etc. **They pass all Underwriters' Tests with flying colors.**

Remember this: so excellent is Barton performance and construction that NOT IN TEN YEARS do we know of a single pump which has failed in line of duty.

Write us today for the address of our nearest representative. Let him show you how to save money, and still have the kind of pumping apparatus your whole community will be proud to own.



Barton U-Type Fire Pumps are regularly equipped with **gear-drive.** Truck motor operates at approximately one-half pump speed — **no strain on motor.** Available in 350, 400, 500 and 600-gallon sizes. Also other Barton Pumps at still lower prices.

Why Over 1000 Chiefs Chose BARTON Pumps

1 —**Centrifugal type** — pumps clean or dirty water.

2 —**Easily installed on front of truck** — great economy — no chassis changes required.

3 —**Large capacities and high pressures**—equal to any emergency.

4 —**Underwriters' Tested.**

5 —**Simple design** — dependable and trouble-free.

6 —**Fully accessible** — no hidden parts.

7 —**Light weight.**

8 —**Easy to operate** — simple as driving a car.

9 —**Automatically primed.**

10 —**Guaranteed by Million Dollar Company.**

AMERICAN-MARSH PUMPS, INC.

CENTRIFUGAL, TURBINE, STEAM, AND POWER PUMPS

BATTLE CREEK, MICHIGAN . . . PUMPS AND PUMPS ONLY SINCE 1873

PRINTED IN U. S. A.